

ABSTRACT

Disclosed is a magnetically inductive flow meter comprising a measuring tube, an electrode array with electrodes that are disposed perpendicular to a direction of flow through the measuring tube on opposite sides of the measuring tube, and a coil arrangement with at least one saddle coil, the axis of which extends perpendicular to the direction of flow and perpendicular to the electrode array. Said saddle coil is provided with four members, two first ones of which extend parallel to the direction of flow while two second members extend in the circumferential direction of the measuring tube. The aim of the invention is to improve the measuring accuracy of a measuring tube having a reduced diameter. Said aim is achieved by arranging a magnetically conducting element which receives a first portion of the magnetic flux, between each first member and the measuring tube, a second portion of the magnetic flux flowing past the element from an area that is surrounded by the saddle coil.